

(54) [Name of Document] GLUCOSE UPTAKE INHIBITOR AND GLUT4
TRANSLOCATION INHIBITOR IN FAT CELLS, GLUCOSE UPTAKE
ACTIVATOR IN MUSCLE CELLS AND FOOD FOR REDUCING FAT

(57) [Abstract]

[Problems to be Solved] To provide new applications
of an extract of tea and components thereof, based on
results of studies on effects of the tea extract and the
components on glucose uptake activity, functions of glucose
transporter 4 (GLUT4) or the like.

[Means for Solving the Problems] A glucose uptake
inhibitor and an insulin stimulation-responsive glucose
uptake inhibitor in fat cells containing any one of
catechin gallate, catechin having a gallate ester and a tea
extract as an effective component are provided. As an
amount of fat cells is reduced, obesity and various
disorders caused by the obesity can be treated and
prevented. In addition, the uptake of the glucose in the
muscle cell is activated, so that the excess glucose is
taken into the muscle cell and consumed. Therefore, sugar
concentration in the blood is not increased and there is no
lassitude, etc. caused by obesity control.